

Abstract

The present invention relates to a digital image recognition system having
10 a minimum constructional length of less than one millimetre. The image
recognition system hereby comprises a microlens array, a detector array
and optionally a pinhole array. The mode of operation of this image
recognition system is based on a separate imaging of different solid angle
segments of the object space by means of a multiplicity of parallel optical
15 channels. The optical axes of the individual optical channels thereby have
different inclinations so that they represent a function of the distance of
the optical channel from the centre of the side of the image recognition
system orientated towards the image, as a result of which the ratio of the
size of the field of view to the image field size can be determined
20 specifically. Detectors are thereby used with such high sensitivity that the
detectors have a large pitch with a small active surface area.